AUTO-DIALING WITH TS 2068 AND A MODEM
by John Hancock

Now that more of us have modems, more of us are looking for ways to make use of them. Among other things, 2050's are good phone dialers. They can dial a number typed directly on the computer keyboard or use a number stored in memory. This can all be done with a simple BASIC program.

The first BASIC auto-dial routine I know of was one offered to the public on a CompuServe SIG 20 July, 1984 by Randy Kuhn (72376.1122). Here is Randy's program:

```
10 INPUT A$              80 OUT 119,E
15 OUT 119,31            90 PAUSE 3.5
20 FOR I=1 TO LEN A$    100 NEXT E
30 LET A=VAL A$(I)      110 OUT 119,1
32 IF A=0 THEN LET A=10 120 OUT 119,2
35 PAUSE 25             130 NEXT D
40 GO SUB 60            140 RETURN
50 NEXT I              150 PRINT "FINISHED"
55 GO TO 150           160 PAUSE 0
60 FOR D=1 TO A        170 OUT 119,0
70 FOR E=3 TO 4
```

If you choose to try this program, you may wish to experiment with the PAUSEs in lines 35 and 90. On most phone systems, these can be shortened to speed up dialing. Note that the 3.5 in line 90 might as well be 4 since the 2068 automatically rounds PAUSE numbers to the nearest whole number. Although OUT 119,31 is supposed to initialize the phone for auto-dial, I have found that on my system, it is necessary to add a prior command or else the first dialing fails (subsequent dialings are OK, however). If you have this problem, add a line 12:
                OUT 119,34: OUT 119,0
Note that the program waits for a key press at line 160 and if you don't hit a key, your phone will remain 'off the hook'. Line 170 "hangs up" the phone with OUT 119,0.

Variations on Randy's routine have been used in other programs. Two that I know of are Dan Mowrey's BREAKTHRU and my TELEPHONE BOOK, both of which are in our group tape library.

-223-

DON'T FORGET!   DON'T FORGET!

TIMEX SINCLAIR SWAP MEET

1-5 PM, SUNDAY
JULY 20, 1986

PENINSULA   HOSPITAL
1783 EL CAMINO REAL
BURLINGAME

FOR ALL TS USER GROUPS
AND FOR ALL TS USERS

****
C O N T E N T S
****

****

P.O. BOX 644
SAFETY HARBOR, FL. 33572

Gentlemen:

I thought your readers might be interested in knowing that Tom Wood's PRO/FILE program is now available for the Rotronics Wafa Drive. It includes most up-dates of the original program.

With Tom's blessings, Mr. George Fetherman of the Florida Tas Bam Users' Group, Inc. has modified the PRO/FILE program to provide the following:

1. MENUS have been changed to allow more information to be printed on them.

2. SAVE & LOAD routines have been re-written to allow SAVING and LOADING to Wafadrive or to cassette. Saves and Loads data files ONLY.

3. AUTOSEARCH/SORT routine incorporates Tom's new machine code. (See Issue #1 of Tom's "Breakthrough")

4. DEFP — Un-changed.

5. NN — NEW NAME — as explained in Tom's manual.

6. RST — RE-START —as explained in Tom's manual.

7. POUND SIGN — by entering this routine you toggle "ON" and "OFF" the BOLD characters sent to the 2040 printer.

8. CAT — Entering this TOKEN allows cataloging of either drive.

9. MOVE — Enables you to move files from one wafa to another.

10. FORMAT — Token permits formating either drive.

11. WAFA TOKENS — Wild card commands permitted.

12. IN — As a search command, permits loading of files saved in original format.

13. ON ERR — Simulated routine to help prevent data loss while in EDIT. (Same as Tom uses in his SPECTRUM PRO/FILE.)

Another nice feature of this PRO/FILE modification is the fact that there has been NO LOSS of DATA FILE space!!! It is very "USER FRIENDLY" and adds considerable flexibility to PRO/FILE. The documentation provided, when used with Tom Woods' manual, makes it one of the best documented programs available.

This program modification is available from Mr. George Fetherman at 5956 — 45th Ave. No., St. Petersburg, Fl. 33709, (813-546-4278). Cost is $10.00 for the NEW VERSION WAFA PLUS $1.00 S/H. If anyone purchasing this program does NOT already own the original program you should contact Tom Wood to purchase his manual. The documentation accompanying this version covers ONLY the CHANGES, not the finer points which make PRO/FILE one of the best, and best documented, programs available for T/S users.

This information has been forwarded to you in the interest of your members and/or readers, as a service to them. I hope you will find it worthy of your publication.

Respectfully,

TAS BAM USERS' GROUP, INC.
Warren M. Reed.

I'm a new subscriber to TIMELINEZ and have already gotten my ten dollars' worth, particularly because Walt Gaby showed me a better way to program UDGs.

I'm enclosing one of the programs I wrote on my TS1000 and then adapted to my 2068. One of these days I'll add COLOR and SOUND to it - as soon as I find a monitor. If you find it interesting, by all means use it.
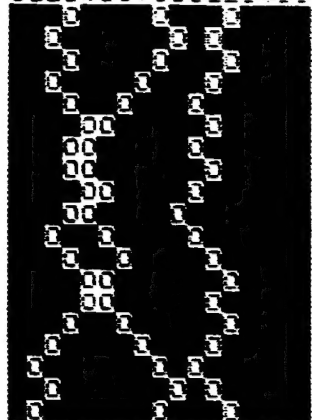
BINOMIAL BINGO

IN THIS GAME YOU PLACE A DISC ANYWHERE ON TOP OF THE BOARD, NUMBERED FROM 0 TO 16. IT WILL TRAVEL BINOMIALLY DOWN TO THE BOTTOM, LANDING IN A SPACE THAT PAYS FROM $0 TO $1000.
WATCH OUT! IF IT LANDS ON THE JINXED NUMBER YOU'LL LOSE THAT AMOUNT OF MONEY.

HOW MANY PLAYERS?

```
0123456789 0123456
```

PLAYER	MONEY
1	$-300
2	$1000
3	$200

```
12403120M02130421
```

```
  1 REM .."BINOMIAL BINGO"
  2 REM ..LOAD"BIB"
  3 REM ..STOLEN FROM TPIR'S
       .."PLINKO".
  4 REM ..BY GERTIE ANDERSSON
 50 PRINT TAB 9;"BINOMIAL BINGO
";TAB 9;"
 60 PRINT ''"IN THIS GAME YOU PL
ACE A DISC  ANYWHERE ON TOP OF
THE BOARD,"
 65 PRINT "NUMBERED FROM 0 TO 1
6. IT WILL   TRAVEL BINOMIALLY DO
WN TO THE"
 70 PRINT "BOTTOM, LANDING IN A
SPACE THAT PAYS FROM $0 TO $100
0."
 75 PRINT "  WATCH OUT! IF IT L
ANDS ON THE JINXED NUMBER YOU'LL
LOSE THAT   AMOUNT OF MONEY."
100 PRINT  '''"HOW MANY PLAYERS?
"
110 INPUT N
120 DIM A(N)
130 DIM M(N)
140 LET A=0
150 CLS
160 PRINT AT 0,0;
170 LET H=4
200 PRINT "0123456789 0123456"
210 PRINT TAB 18;"PLAYER MONEY"
;TAB 18;"
220 FOR B=1 TO 19
```

```
230 PRINT AT B,0;"
240 NEXT B
250 PRINT "12403120M02130421"
260 LET S=INT (RND*15)
265 IF S=3 OR S=7 OR S=9 OR S=1
3 THEN GO TO 260
270 FOR I=1 TO 10
280 PRINT AT 20,S;" ";AT 20,S;
INVERSE 1;"X";  INVERSE 0
290 NEXT I
300 FOR L=1 TO N
310 PRINT AT 21,0;"PLAYER ";L;"
, PLACE YOUR DISC"
320 INPUT X
325 IF X>16 THEN GO TO 320
330 PRINT AT 1,X;"O"
335 PRINT AT 21,0;"
340 FOR Y=2 TO 19
350 LET R=INT (RND*2)
390 IF R=0 THEN LET X=X-1
400 IF R=1 THEN LET X=X+1
410 IF X<0 THEN LET X=X+1
420 IF X>16 THEN LET X=X-1
425 FOR J=1 TO 10
430 PRINT AT Y,X;"*";AT Y,X;"O"
432 NEXT J
435 PAUSE 10
440 NEXT Y
445 IF X=S THEN GO TO 520
450 IF X=3 OR X=7 OR X=9 OR X=1
3 THEN LET M(L)=0
460 IF X=0 OR X=5 OR X=11 OR X=
16 THEN LET M(L)=100
470 IF X=1 OR X=6 OR X=10 OR X=
15 THEN LET M(L)=200
480 IF X=4 OR X=12 THEN LET M(L
)=300
490 IF X=2 OR X=14 THEN LET M(L
)=400
500 IF X=8 THEN LET M(L)=1000
510 GO TO 610
520 IF S=0 OR S=5 OR S=11 OR S=
16 THEN LET M(L)=-100
530 IF S=1 OR S=6 OR S=10 OR S=
15 THEN LET M(L)=-200
540 IF S=4 OR S=12 THEN LET M(L
)=-300
550 IF S=2 OR S=14 THEN LET M(L
)=-400
560 IF S=8 THEN LET M(L)=-1000
610 LET A(L)=A(L)+M(L)
615 PAUSE 25
620 PRINT AT H,20;L;AT H,25;"
";AT H,25;"$";A(L)
630 LET H=H+2
640 NEXT L
650 PRINT AT 21,0;"ANOTHER GAME
? YES(Y) OR NO(N)"
655 INPUT Z$
670 IF Z$<>"Y" THEN GO TO 700
680 PRINT AT 21,0;"
"
690 GO TO 160
700 CLS
710 PRINT AT 8,6;"THANKS FOR PL
AYING"; ''TAB 8;"BINOMIAL BINGO"
720 PRINT AT 21,25;"GA 8/84"
```

COOPERATIVE EFFORT
PRODUCES SPECTACULAR (BUT S-L-O-W)
RLE GRAPHICS DECODING FOR T/S 2068

by
Nora Lehfeldt

No sooner had last month's article describing RLE graphics decoding for the QL (TIMELINEZ, June, 1986) appeared in print than did John Ryan of Oklahoma City come up with the core of the program presented here and upload it to CompuServe.

John very readily agreed to the publication of his program, but before it could be prepared for our printer, George Mockeridge got his hands on it and made some substantial improvements.

Before we get into a discussion of the program, here are some hints for downloading RLE graphics files from CompuServe using MTERM:

After you have selected the file you wish to download, use 'READ' rather than 'DOWNLOAD' to capture it. Once you have made this selection, you will usually be informed that your terminal does not support this graphic display (What do THEY know?) and asked if you wish to continue. Press 'y' for yes but do not hit enter yet. Go to your buffer menu and be certain that your CONversion is set to 'NONE' and that the buffer is empty (bfused=0). Then a series of 'ENTER's will get you back to the terminal mode and initiate the tranfer.

RLE files are of varying lengths, depending on the amount of detail in the pictures. The longest I have seen, so far, is about 22K. The footer on an RLE file is 'Bell, G, N,.' You will hear the 'Bell' and transmission will cease. Go to your buffer menu, close the buffer. Be SURE to make a note of the length of the file (bufused). Return to terminal mode and sign off CompuServe.

Immediately return to BASIC and SAVE the buffer contents -- SAVE "name"CODE 26710,bufused.

Turn your computer off and back on (or RAND USR 0) and then re-LOAD the file -- LOAD "name"CODE 40000. It is essential that the CODE be loaded to the starting address 40000.

If you have followed these directions exactly, the addresses 40000, 40001, 40002 should now contain the numbers 13, 71, 72 respectively. These represent 'CR' (carriage return), 'G', 'N'. The correct header for an RLE file is 'ESC G N', so POKE 40000,27.

If you find the first three codes of the file are something different, all is not lost. You may just have gotten some text ahead of the file. PEEK around the file a little to see if you can find 71 and 72 in sequence. If you do, then POKE 27 to the address just below that of the 71 and the program should work -- it begins by searching the file for that 27, 71, 72 sequence. Once you have got this part right is is a good idea to SAVE the CODE before going on. Then you will be able to start over without spending the time and money on capturing the file again, should anything go wrong during the decoding process.

The rest is easy. Just LOAD the RLE program and RUN it. You should begin to see the picture drawn line by line (and very slowly) on your screen. When the program reaches the bottom two lines of the screen. You will see a prompt to remind you of the options once the picture is completed. You will have plenty of time to mull over your options while the computer creates the user defined graphics for the bottom of the screen.

If you choose 's' to save the picture as a SCREEN$ -- a wise choice since it may have taken fifteen or twenty minutes to draw the picture! -- be prepared to wait some more before starting your recorder as the computer prepares the file for SAVEing.

Re-LOAD the picture as follows: LOAD "picture" CODE 16384 : PAUSE 0. If you omit the PAUSE, the computer will overwrite the bottom two lines of the picture with the 'OK' report. If you wish to change the BORDER color, put the BORDER statement AFTER the LOAD statement (If you try it the other way, you'll see why). Of course you may insert a COPY command in place of the pause to get a print-out of the picture.

The best way to learn more about this is just to experiment with it. At the July meeting I will put this program in the PUG library with some picture files on the other side for you to experiment with if you wish.

In his original notes on this program, John Ryan pointed out that it was compilable with the JRC or ZIP compilers, and that compiling it reduced the decoding time for each picture to around 15 seconds! I doubt if that is true of this version. But I have just received the new 'Timachine' compiler from Novelsoft in Toronto and believe it will be possible to substantially speed up the program with it. That will be a subject for a future article.

In the meantime, this cooperative effort by John Ryan and George Mockridge gives us a welcome new graphics mode for the 2068.

```
1 REM RLE Picture program, 1986...John Ryan
2 REM Remember, load the picture file starting at DEC 400
00
3 REM 2040 printer, screen   color & save modifications b
y Geo. Mockridge"
4 INK 0: PAPER 7: BORDER 0: CLS : LET flag=0
5 DIM l$(16,256)
6 RESTORE : FOR n=24500 TO 24505: READ x: POKE n,x: NEXT
n
7 DATA 243,6,192,195,5,10
8 LET g$="                       ": REM inverse
video & space
9 FOR f=0 TO 21: PRINT AT f,0;g$: NEXT f
10 LET A=40000
11 LET X=0
12 LET Y=175
60 LET B=PEEK A
70 IF B=27 THEN  GO TO 90
80 GO TO 60
90 LET A=A+1
100 LET B=PEEK A
110 IF B=71 THEN  GO TO 130
120 GO TO 100
130 LET A=A+1
140 LET B=PEEK A
150 IF B=72 THEN  GO TO 170
160 GO TO 140
170 LET A=A+1
180 GO SUB 500
190 LET A=A+1
200 GO SUB 600
210 LET A=A+1
211 IF C=0 THEN  GO TO 180
220 GO SUB 700
230 GO TO 180
500 LET B=PEEK A
510 LET C=B-32
520 IF C=0 THEN  RETURN
530 IF C<0 THEN  GO TO 800
540 LET X=X+C: IF X>255 THEN  LET X=X-256: LET y=y-1
550 RETURN
600 LET B=PEEK A
610 LET C=B-32
620 IF C=0 THEN  RETURN
630 IF C<0 THEN  GO TO 800
640 RETURN
700 LET D=0
715 IF 255<x THEN  LET Y=Y-1
716 IF 255<X THEN  LET X=X-256
717 IF Y<0 THEN  LET l$(ABS y,x+1)="0": IF flag=0 THEN  LET
flag=1: GO SUB 760
720 IF y>=0 THEN  INVERSE 1: PLOT X,Y: INVERSE 0

730>LET D=D+1
731 LET X=X+1
740 IF D=C THEN  RETURN
750 GO TO 710
760 INK 9: PRINT #1;AT 0,0; FLASH 1;"WAIT."; FLASH 0;AT 0,6
;"At beep: copy  neg. image"
762 PRINT #1;AT 1,0;"0-7 new ink/paper(2) save screen": INK
0
763 RETURN
800 FOR x=1 TO 16: FOR y=1 TO 256
802 IF l$(x,y)<>"0" THEN  LET l$(x,y)="1"
804 NEXT y
806 NEXT x
830 FOR z=0 TO 1
835 FOR y=1 TO 256 STEP 8
837 FOR x=z*8+1 TO z*8+8
845 LET d$="BIN "+l$(x,y TO y+7)
860 POKE USR "a"+x-1-(z*8),VAL d$
867 NEXT x
870 PRINT #1;AT z,(y-1)/8;"": REM graphic "a"
875 NEXT y
876 NEXT z
880 LET r$="0": LET s$="7": GO SUB 960
881 BEEP .5,10
882 LET r$=INKEY$: IF r$="c" OR r$="n" OR r$="q" OR (CODE r
$)=48 AND CODE r$<=55) OR r$="s" THEN  BEEP .5,10
883 IF r$="c" THEN  RANDOMIZE USR 24500
884 IF r$="n" THEN  GO SUB 900
885 IF r$="q" THEN  STOP
886 IF CODE r$>=48 AND CODE r$<=55 THEN  GO SUB 950
887 IF r$="s" THEN  GO SUB 970
890 GO TO 882
900 FOR n=16384 TO 22527: LET x=PEEK n: POKE n,255-x: NEXT
n: RETURN
910 STOP
950 LET s$=INKEY$: IF (CODE s$>=48 AND CODE s$<=55) THEN  B
EEP .5,10: GO TO 960
954 GO TO 950
960 DIM a$(768)
962 PRINT AT 0,0; OVER 1; INK VAL r$; PAPER VAL s$;a$(1 TO
704): PRINT #1;AT 0,0; OVER 1; INK VAL r$; PAPER VAL s$;a$(
705 TO 736): PRINT #1;AT 1,0; OVER 1; INK VAL r$; PAPER VAL
s$;a$(737 TO 768)
964 RETURN
970 DIM l$(1): LET x=37143
971 FOR n=22527 TO 16384 STEP -1
972 IF x=35090 THEN  INK 9: PRINT #1;AT 0,0; FLASH 1;"WAIT.
"; FLASH 0;" TO RELOAD-LOAD ''picture''": PRINT #1;AT 1,0;"
CODE 16384,6144: PAUSE 0        ": INK 0
973 POKE x,PEEK n: LET x=x-1: NEXT n: BEEP .5,10
975 SAVE "picture"CODE 31000,6144: CLS : LET x=31000: FOR n
=16384 TO 22527: POKE n,PEEK x: LET x=x+1:: NEXT n
976 LET r$="0": LET s$="7": GO SUB 960: BEEP .5,10: RETURN

999 CLEAR : SAVE "rle": VERIFY "rle"
```
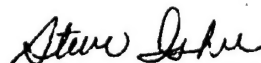
Dear George:

Hope things are going well for you and the other PUG members. Interest seems to be increasing as far as our West Los Angeles ZX users group is concerned. The last two meetings had over 40 plus people in attendance, some as far south as San Diego!

Ed Grey, has put together a local electronic newsletter on his Timex Exchange BBS called "The Timex Press". For those of you with modems and perhaps a long-distance service like GTE Sprint or PC-Pursuit can call and download the contents. His first issue was very good I think. The number of the Average Remote BBS (The Timex Exchange is a Sub-Board #4) is:

(213) 325-0213, and instructions to access the newsletter are given in Section 4.

Hope you can use this short article for your next newsletter. I've been able to convert the Spectrum program Art Studio to work with my AERCO centronics interface. If you don't have this program, by all means get it! It is by far the best graphics program available for the Spectrum.

Well, that's it for now. Take care!

Steve Ishii

Steve Ishii

Art Studio — AERCO CPI Conversion
Instructions

Steve Ishii

Refer to Appendix 6 in the Users Manual for Instructions on Customizing the Art Studio Program with a User Defined Print Driver.

NOTE! Your printer must have bit-mapped graphics capability in order to be able to fully utilize the print options.

Art Studio (And Extended Art Studio) can be converted to work with the AERCO CPI with the following customization steps. The procedure for entering the modifications is as follows:

(1) Load the ART STUDIO or EXTENDED ART STUDIO program as usual.

(2) BREAK into the program once it has loaded.

(3) In the immediate mode, POKE the following 26 bytes into memory:

48000,100	48010,201	48020,211
48001,135	48011,219	48021,127
48002,110	48012,127	48022,60
48003,135	48013,203	48023,211
48004,111	48014,103	48024,127
48005,135	48015,201	48025,201
48006,116	48016,211	
48007,135	48017,127	
48008,26	48018,62	
48009,0	48019,14	

(4) Re-Start the program with RUN and enter 255 (user own driver) when asked which interface is being used.

(5) The remaining steps are identical to the instructions in the ART STUDIO manual for customizing the program for the type of printer being used. The program will automatically save your customized print driver rout

(6) To test your modifications, create some screen design (or load a previous saved screen) and pull down the PRINT menu. Select any of the options desired and cross your fingers! You should get beautiful screen copies of your artistic talents!

ENJOY!

FROM MAY 29, 1986 MICROSCOPE N/L.

FROM JUNE 16,1986 WALL STREET JOURNAL

FROM THE PRICE CLUB N/L - ISSUE #2.

QL: A successor expected.

CST launch of heir for QL

A revival in the fortunes of the Sinclair QL is being anticipated by enthusiasts, and a new version is about to be launched.

Encouraged by a belief in the Sinclair QL as an established design, a company which makes add-ons has decided to make the QL Mk II itself.

The machine, to be called Thor, is to be launched by CST at the PCW Show in September, and will be a £550 box including Sony-style 3½ in diskettes, instead of microdrives.

It will be built around the original QL board, with a new box and keyboard, and there will be a hard-version with 20 megabytes for around £1300.

But it will probably not be sold through normal retail/distribution channels. Instead, it will be offered mostly through mail order.

The rivalry of Atari's ST, based on the same family of 68000 chips, doesn't bother the company.

Guy Kewney

The Top Manufacturers (By Installed Units)

Total personal computers (priced under $12,000) in U.S., through 1985

	UNITS INSTALLED (in thousands)	MARKET SHARE	PERCENT COMMERCIAL	PERCENT NON-COMMERCIAL	PERCENT HOME
Commodore	3,823.3	17.83%	17.5%	6.3%	76.4%
IBM	3,365.3	15.69	79.4	10.9	9.7
Apple	2,767.6	12.90	37.4	22.3	40.3
Tandy	2,095.7	9.77	28.9	15.8	55.3
Atari	1,110.2	5.18	7.5	16.3	76.2
Texas Instruments	1,009.8	4.71	15.8	3.4	80.8
Sinclair ✯✯✯✯	750.3	3.50	0.0	0.0	100.0
Sharp	601.2	2.80	21.2	27.3	51.5
Compaq	381.6	1.78	89.9	5.5	4.6
Hewlett-Packard	359.2	1.68	57.5	37.9	4.6
Coleco	293.0	1.37	0.0	0.0	100.0
AT&T	271.2	1.26	71.8	19.1	9.1
Kyocera[1]	259.5	1.21	55.0	30.0	15.0
Kaypro	227.1	1.06	61.4	10.9	27.7
Wang	227.0	1.06	94.4	5.2	0.4
Digital Equipment	210.0	0.98	72.2	27.3	0.5
Zenith	201.7	0.94	69.3	15.4	15.3
Convergent	167.2	0.78	100.0	0.0	0.0
Casio	137.6	0.64	32.8	32.9	34.3
Sanyo	135.2	0.63	60.1	17.4	22.5
Franklin	131.0	0.61	40.0	10.0	50.0
Osborne	110.0	0.51	60.0	15.0	25.0
NBI	92.9	0.43	92.5	0.0	7.5
Epson	92.1	0.43	86.9	4.0	9.1
CPT	81.1	0.38	100.0	0.0	0.0
NEC	77.8	0.36	60.5	14.2	25.3
Mitsubishi	73.6	0.34	70.0	30.0	0.0
Spectravideo	58.0	0.27	2.9	17.1	80.0
Columbia Data Systems	55.6	0.26	34.2	9.7	6.1
NCR	55.2	0.26	83.7	16.1	0.2
Televideo	52.4	0.24	90.1	9.9	0.0
Olivetti	49.3	0.23	79.1	14.6	6.3
Cordata (Corona)	47.6	0.22	83.7	9.2	7.1
Xerox	47.4	0.22	100.0	0.0	0.0
Data General	46.3	0.21	65.5	33.6	0.9
ITT	45.5	0.21	91.9	7.4	0.7
Victor	39.5	0.18	89.9	5.8	4.3
Morrow	38.3	0.18	61.9	19.6	18.5
NorthStar	33.7	0.16	78.5	15.2	6.3
Lanier	30.7	0.14	89.9	0.0	10.1
Ontel	30.3	0.14	85.1	13.9	1.0
Matsushita	30.1	0.14	35.5	19.6	44.9
All others	1,735.1	8.11			
TOTAL	**21,446.3**	**100.00%**	**40.5%**	**14.8%**	**44.5%**

[1]Primarily education and government   [2]Makes the Tandy 100   *Source: InfoCorp, 1986*

Telephone Business Tips

In the slang of the telephone industry, "ten triple-X dialing" means equal access to all long-distance phone companies under the "equal access system." For example, let's assume you live in San Francisco, AT&T is your long-distance carrier, and you are in the equal access system. You wish to call your dad in New York to wish him a Happy Father's Day, but all the lines are busy. What can you do? Redial using a five-digit number (10XXX) which identifies another long-distance carrier. For example, dialing 10700 plus your dad's number will route your call through the Express Tel system. The call will be billed at Express Tel's rate and will appear on your AT&T bill. All you need to do this is an equal access system and the long-distance company codes. A few are listed in the box below.

Long Distance Phone Company	Code #
All NET	10444
AT & T	10288
Express Tel	10700
ITT	10488
MCI	10222
Republic Telecom	10001
TMC Long Distance	10007
US Telecom	10333
Western Union	10220

Timex has succeeded where Sinclair failed and has sold 800,000 US-style Sinclair Spectrums, known as the 2048 and 2068, and Timex FDD3000 disk drives to Poland.

The deal, signed two weeks ago, was arranged by Takis Patrikarakos, managing director of London company Micro Interface, who also acts as consultant for Timex Portugal.

Patrikarakos confirmed that the deal was taking place. "That is all I can say at present," he told *Micro-Scope*. "More details will be released by Timex in New York directly."

Patrikarakos started work two years ago trying to sell Timex' disk drive into the Eastern bloc. But in April this year Sinclair granted Timex the right to market Spectrum products in that part of the world to offset part of its debts to the manufacturer.

This gave Patrikarakos the opprtunity of selling complete systems into Poland.

TIMEX IN POLISH EXPORT TRIUMPH

FROM THE MAY 29, 1986 MICRO-SCOPE N/L (AN ENGLISH MICRO COMPUTER INDUSTRY N/L.)

The 800,000 units will be sold over the next five years, going intially into education, but almost certainly through distributors into other markets. During this time the unnamed Polish organisation will acquire rights to manufacture increasingly large parts of the computers under a technology transfer agreement.

Delivery of the machines is due to start in the summer.

ADDRESS BOOK (BOB KOVACH)	74A
ALALOM COURSE (W.ROBERT)	45B
ALGEBRA II	ED 1A
ANTI-INVOLUTE COMPUTATION	55A
AUTOMOBILE ANALYZER	31A
AUTOMOBILE ANALYZER	75B
BACKGAMMON	EN 18A
BACKGAMMON (PSION)	58A
BAR-DICE (BIOCAL)	64B
BAT CAGE	EN 19A
BIORYTHM	42A
BLACKJACK	46B
BLACKJACK	60A
BLACKJACK (BIOCAL)	64A
BOARD (D.B.DOCKER)	84
BOMBER (PSION)	59B
BREAKOUT (FRANK MOURA)	53A
BRICKBUSTER	49B
BUDGETER,THE	32A
CAPITALIZATION MASTER	ED 2A
CHECKBOOK (SOFTSYNC)	78A
CHECKBOOK (BIOCAL)	65
CHECKBOOK (W.ROBERT)	47A
CHECKBOOK MANAGER	80
CHECKBOOK MANAGER,THE	33A
CHECKPOINT CHARLIE	80
CHECKREC (WMJ DATA SYSTEMS)	71A
CHESS	EN 20A
CLUB REORDS	48A
COMPUTER COACH	ED 3A
CRITICAL PATH ANALYSIS	BU 13A
CUBE GAME ,THE	EN 21A
DICE (PSION)	58B
DIGITAL CLOCK(WILSON ROBERT)	45A
DISA-1000	73A
DRAW IT	42B
ELECTRICAL FILTER DESIGN	ED 4A
FACECLOCK	52B
FAST ONE,THE (MINDWARE)	86
FINANCIAL MANAGER & RECORD	82A
FLIGHT SIMULATOR	ED 5A
FORTRESS OF ZORLAC	EN 22A
FROGGER	EN 23A
FUNDAMENTALS OF MATH	ED 6A
GALACTIC GUNNER	EN 24A
GIN-RUMMY	79A
GIN-RUMMY (BIOCAL)	61A
GRAPHICS KIT 16K (SOFTSYNC)	88A
GRIMM'S FAIRY TRAILS	EN 25A
GULP II	50A
INTRODUCTION TO CHEMISTRY	ED 7A
INVENTORY CONTROL	BU 14A
IRA PLANNER,THE	35A
KASINO KRAPS	EN 26A
LABELS AND INVOICES (TALLEY)	56A
LANGUAGE USAGE	ED 12A
LINE RENUMBER	40A
LINEAR SEARCH	75A
LOAN SCHEDULE (W.ROBERT)	47B
LOAN/MORTGAGE AMORTIZER	36A
LOW PASS FILTER	41B
MANUFACTURING CONTROL	BU 15A
MATHEMATICS 1	57
MEELBORN (BIOCAL)	63A
MEMO CALENDAR (M. ELWELL)	77A
MEMO CALENDER	72A
MIXED GAME BAG 1,THE	EN 27A
MONSTER MAZE (3D)	51A
MOONLANDER	52A
MULTIPLICATION (W.ROBERT)	46A
MUSIC KEYBOARD(BOB ORRFELT)	54A
NIM (BIOCAL)	66A
ORGANIZER,THE	38A
PILOT (MINDWARE)	69A
PINBALL	54B
PITCH DIAMETER MEASUREMENT	55B
PROGRAMMERS TOOL KIT 16K	83A
PUNCTUATION MASTER	ED 8A
PUZZLER,THE	EN 28A
RIVERSIDE (BIOCAL)	63B
SCOREPAD (WALT JOHNSON)	76
SCREEN-CODE 2.0 (BANTA)	68A
SHELL GAME,THE (D.B.DOCKER)	85
SHUFFLED CARDS	40B
SLOT MACHINE	60B
SOLAR WATER HEATER DESIGNER	39A
SOLITAIRE (BIOCAL)	61B
SPACE RAIDERS (PSION)	59A
STATES & CAPITALS	80
STATES (NEIL STECKLEY)	53B
STATES AND CAPITALS	ED 9A
STATISTICS	BU 16A
STOCK MARKET (BIOCAL)	62
STOCK OPTION ANALYZER,THE	37A
STOCK SCREEN	43A
STRATEGY FOOTBALL	EN 29A
SUBSCRIPTION (SYNCHRO-SETTE)	81
SUPER MATH	ED 10A
SUPERMAZE	50B
SUPERMAZE	EN 30A
SURROUND	70A
TAC-TIX (BIOCAL)	66B
TAPE LABELER FOR 1000/1500	67A
TELE.ADD.MAIL LIST(M.ELWELL)	77B
TELEPHONE,ADDRESS,MAIL	72B

2K FUN PACK	*
2K SPEECH DEMO	
5-2K GAMES	
ATOR-THE ABC GATOR	
AUTO ANALYZER	
BIGFLAP ATTACK	
BIORHYTHMS	
CAPITALIZATION MASTER	
CHECKBOOK	
CLUB RECORDS	*
DATAQUESTER	
DICE	
DUNGEON	
ENGLISH LITERATURE 1 AND 2	*
EPHEMERIS V	
FINANCIAL MNGR AND RECORD KEEPER	●
FLIGHT SIMULATOR	
FORMCALC	*
FROGGER	
FUNDAMENTALS OF MATH	
GIN-RUMMY	
GRIMM'S FAIRY TRAILS	
GULPER	
HORSERACE	*
LANGUAGE USAGE	
LIFE	
LITTLE TOOT	*
LOADER	
LUNAR LANDER	*
MAZOGS	
MEELBORN	
MEMORY SCOPE	
MERCHANT OF VENUS	*
MONOPOLY	*
MORSE CODE	
MORSE CODE TRANSLATOR	
MTERM/T	
MUSIC EDUCATOR 1	
MX-PAC 18	
NIM	
PELOPONNESIAN WARS	*
PINBALL	
POWER PACK 1	
PRESIDENTS	
REVERSI 1000	*
RIVERSIDE	
SABOTAGE	*
SOLITAIRE	
SOUND	
SPELLING BEE	
STOCK MARKET	
STOCK MARKET TECH. ANALYSIS 1	
STTR1 (STAR TREK?)	*
SUPER PROGRAMS 1	
SUPER PROGRAMS 2	
SUPER PROGRAMS 3	
SUPER PROGRAMS 4	
SUPERMAZE	
TAC-TIX	
TALKING TS1000	
TAROT	*
TEACHER'S GRADEBOOK	
TEXTWRITER 1000	
THE BUDGETER	
THE CARPOOLER	
THE CHECKBOOK MANAGER	
THE COUPON MANAGER	
THE CUBE GAME	
THE FAST ONE	
THE INSURANCE PROPERTY RECORD	
THE IRA PLANNER	*
THE STAMP COLLECTOR	
THE STOCK OPTION ANALYZER	
TIC TAC TOE	*
TOOLKIT	
TS-ART	
VU-CALC	
WHAT CAN I DO WITH TS1000? LOTS	
WIZARD	
WORD TEST	
WORDSTEW	
WORM	
ZX ASSEMBLER	
ZX BUG	
ZX-MAN	*
ZX/PHONE BOOK	

* These titles have no documen-
tation. If you can donate an
extra copy, please mail it to:
John Ezike, 1619 Grant St. # 6,
Berkeley, CA 94703. THANKS

TEST (WMJ DATA SYSTEMS)	71B
TIMES SQUARE (MESSAGE BANNER)	49A
TOTAL TRIANGLES	ED 11A
VU-CALC	BU 17A
WINDOW (MEMORY LOCATIONS)	41A
WORDTEST (MINDWARE)	87
YAHTZEE GAME,THE (E.S.LOW)	89A
ZACKMAN	70B
ZAP (TULEE CAMERON)	44B
ZTEXT (MINDWARE)	56B
ZX DESTROYER (AREVALO ALEX)	44A

Latest update: 6-15-86

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COMPUTER CALENDAR
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J U L Y
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20   Peninsula User Group   1:00
     A N D   S W A P   M E E T
     Peninsula Hospital
     1783 El Camino Real
     Burlingame

24   East Bay User Group   7:30
     West Branch Library
     1125 University Avenue
     Berkeley

26& SAN FRANCISCO COMPUTER EXPO
 27 SAN FRANCISCO CONCOURSE
     8th and BRANNAN STREETS
     SAN FRANCISCO   10 am - 5 pm

29   Silicon Valley User Group 7:00
     Cupertino Library
     10400 Torre Avenue
     Cupertino

A U G U S T
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 2   BAY AREA COMPUTER SWAP
     COW PALACE   10 am - 5 pm

17   Peninsula User Group   1:00

26   Silicon Valley User Group 7:00

28   East Bay User Group   7:30

S E P T E M B E R

12-13-14   SILICON VALLEY '86
           Computer and
               Technology Exposition
           Santa Clara
                   Convention Center

21   Peninsula User Group   1:00

25   East Bay User Group   7:30

30   Silicon Valley User Group 7:00

E B Z U B   EAST BAY ZOO USER GROUP
=========   654 40th STREET
             RICHMOND, CALIFORNIA 94805
             (415) 234-3310

PRESIDENT: (VACANT)

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             1125 UNIVERSITY AVENUE, BERKELEY

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P U G   PENINSULA USER GROUP
=====   263 GATEWAY, NO. 107
         PACIFICA, CALIFORNIA 94044
         (415) 359-3198

PRESIDENT: GEORGE MOCKRIDGE

MEETINGS: THIRD SUNDAY OF EACH MONTH, 1:00 P.M.
             PENINSULA HOSPITAL
             1783 EL CAMINO REAL, BURLINGAME

MAIL DUES TO "PAT MORRISSEY", 2000 CRYSTAL SPRINGS ROAD,
             BLDG 21, APT 22, SAN BRUNO, CA 94066

S V S T U G   SILICON VALLEY SINCLAIR TECHNOLOGY USER GROUP
===========   6675 CLIFFORD DRIVE
               CUPERTINO, CALIFORNIA 95014
               (408) 253-3175

PRESIDENT: RITA CARR, (408) 738-2988, X-4579

MEETINGS: LAST TUESDAY OF EACH MONTH, 7:00 P.M.
             CUPERTINO LIBRARY
             10400 TORRE AVENUE, CUPERTINO

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One of the more intriguing uses of this routine is as an added module in an already existing program. For example, here is my variation of Randy's program applied to an ADDRESS BOOK version of PRO/FILE. The first three lines get the phone number from PRO/FILE's E$ array. Records in PRO/FILE are PRINTed line by line from the array E$ which is DIMensioned (15,32). The auto-dial routine must know where to get the number. My PRO/FILE Address Book is set up so that the phone numbers are always on line 5 of each record. This is why line 8010 of the following program module scans E$(5). The module may be put anywhere within PRO/FILE that doesn't interfere with program operation. It certainly doesn't have to start at line 8000.

The following is essentially an elaboration of the above program with some variables renamed for reasons of compatibility.

```
8000 LET B$=""
8010 FOR X=1 TO 15: IF CODE E$(5,X)>47 AND
CODE E$(5,X)<58 THEN LET B$=B$+E$(5,X)
8020 NEXT X
8030 ON ERR GO TO 8100: OUT 119,34: OUT 119,0:
OUT 119,31: PAUSE 40
8040 PRINT AT 15,8;FLASH 1;"DIALING ";FLASH 0;B$
8050 FOR X=1 TO LEN B$: LET Z=VAL B$(X): IF Z=0 THEN
LET Z=10
8060 PAUSE 20
8070 FOR Y=1 TO Z: FOR E=3 TO 4: OUT 119,E: PAUSE 1:
NEXT E: OUT 119,1: OUT 119,2: NEXT Y: NEXT X
8080 PRINT AT 15,0;"DIALING COMPLETED--PICK UP PHONE":
BEEP 2,14: PAUSE 100
8100 OUT 119,0: PAUSE 40: ON ERR RESET : GO TO 1050
```

A line must be added earlier in PRO/FILE to send program control to the auto-dial module, such as:

```
1065 IF Y$="DIAL" THEN GO TO 8000
```

This would allow the word "DIAL" to be typed as a command to initiate the routine.

Lines 8000-8020 scan the first 15 spaces in E$(5) for numbers putting them into B$ and ignoring any non-numeric characters. Line 8030 sets up an ON ERR GO TO which allows BREAK to abort the dialing process, sending the program directly to line 8100 and thereby hanging up the phone. Line 8030 also initializes the phone system. Lines 8050-8070 accomplish the actual dialing. Line 8080 alerts the user to pick up the phone with a BEEP and a prompt. The PAUSE allows time to do this, then opens the modem relay so that when the phone is placed back on the hook, hangup will occur.

If dialing problems are encountered, try lengthening the PAUSEs in lines 8060 and 8070.

It is hoped that you will be encouraged to not only try the routines outlined above, but to experiment with ways of adding auto-dialing to your own programs!

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